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DETECTION OF STRYCHNIA IN THE SUBSTANCE OF A STOMACH.

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[Communicated for the Boston Medical and Surgical Journal.]

THOSE who have read the celebrated Palmer trial, and that recently published in this JOURNAL, are aware that chemists have been doubtful whether strychnia could be satisfactorily detected in the tissues. Recently I have had an opportunity of fully testing this question, and will now give that portion of the case to the public, leaving the other circumstances to be developed in a trial now pending. After separating small portions of strychnia from the contents of the stomach, by the most approved processes described in the books, I took the stomach, dissected off all the fat that could be separated, and then inverted it and washed it with hot alcohol, and from the alcoholic solution I separated a little strychnia.

I next took the stomach itself, cut it into small fragments and digested it in cream of quicklime until it was thoroughly disorganized, a boiling heat being employed. Then the whole was dried off, until it became too thick to run, and it was next placed on filtering paper and made thoroughly dry in a current of warm air, after which the whole was reduced to fine powder, and was boiled in 80 per cent. alcohol for some time and then filtered, and the matter on the filter was washed with weaker alcohol so long as anything could be dissolved out containing strychnia. The whole clear solution was then evaporated, by a steam bath, to near dryness, and a dilute solution of pure sulphuric acid was added, until slight acidity was discovered by blue litmus test paper.*

I then adopted Dr. Hayes's method of clearing the solution of oil or fatty matters, namely, by adding purified wax and boiling so as to cause the molten wax to absorb and solidify the oils. The

* This method, I understand, was first employed for the detection of strychnia in animal tissues by Dr. Green, of Cambridge. (See Proceedings of Boston Soc. Nat. Hist.)

vessel was then placed on snow and allowed to cool to the freezing temperature. By this means I obtained a solid crust, which contained all the fat now combined with the wax, and the solution below it being drawn off and filtered through Swedish paper was clear and nearly colorless. This was treated with pure bi-carbonate of soda, in excess beyond saturation, and again filtered through Swedish paper. Then pure ether was mingled with it, in the proportion of five or six times its bulk, and the whole placed in a glass tube having a cork with one long tube reaching through the whole length of the glass, and another just passing through the cork, this being my separating apparatus. In this the two liquids were thoroughly mixed by shaking, and the glass was inverted, the tubes being both closed with the thumb. After the ethereal solution had separated and risen to the surface, the heavier liquid below was drawn off by itself, and the ethereal solution was then allowed to flow out into a series of watch-glasses, from which the ether evaporated spontaneously, and beautiful feathery crystals of strychnia were obtained. These were then washed out by weak alcohol into a single watch-glass, and on evaporation of the alcohol and water under the exhausted air-pump bell over concentrated sulphuric acid, well-defined prismatic crystals of strychnia were obtained, and were examined by the microscope and compared with known strychnia crystals. The bitter taste of these crystals was observed to be identical with that of known strychnia. They also responded perfectly to all the color tests as strychnia, and produced the characteristic salts with bi-chloride of platinum, &c.

In applying the color tests, concentrated sulphuric acid (oil of vitriol) must be applied to the strychnia and observed, whether or no it produces any change of color. In pure strychnia it will not. Then add a small crystal of bi-chromate of potassa, and if the matter is strychnia, streaks of blue changing into violet, purple and red will appear, and these streaks may be renewed for hours, even if there is but a visible particle of pure strychnia present. Ferri-cyanide of potassium (red prussiate of potash), per-oxide of lead and per-oxide of manganese will give the same colors when they are added to the strychnia in sulphuric acid. If per-oxide of lead is employed, a fraction of a drop of nitric acid should be added. All these tests showed the crystals obtained from this stomach to be strychnia, as did the other characteristic chemical compounds of it. There still remained a very important experiment to make, to place beyond question the nature of this poison, and that was by the actual trial of it on a living animal. Having but little of it to operate with, I selected a Canary bird for the experiment, and after dissolving one twentieth of a grain of the crystals in alcohol and water and evaporating off the alcohol, leaving an aqueous solution of strychnia, Dr. Ainsworth having made an opening in the skin of the bird, which was held by Mr. Balch,

by means of a pipette I threw a drop of this solution under the skin of the bird. In a few moments it had convulsions, and died with the characteristic symptoms of strychnia-poisoning in less than one minute, the legs being thrown stiffly back in a line with the body, and the neck bent back by the spasm.

The whole amount of strychnia which I separated from the substance of the stomach in this case was less than one tenth of a grain, but it was well defined and clear from all admixtures. I found it much less difficult to extract the strychnia from the substance of the stomach than from the grumous mass of half-digested matter which it had contained, and I recommend this method to my brother chemists as reliable and not difficult to execute.

Boston, May 1st, 1861.

DR. ROBIN'S MEMOIR ON THE ANATOMY AND PHYSIOLOGY OF THE MUCOUS MEMBRANE AND THE EPITHELIUM OF THE UTERUS DURING PREGNANCY.

[Continued from page 283.]

Part Second.

OF THE MODIFICATIONS WHICH THE EPITHELIUM OF THE BODY OF THE UTERUS UNDERGOES DURING GESTATION IN THE HUMAN FEMALE AND IN ANIMALS.

§ 1.—*Of the modifications of the Uterus during pregnancy in the Human Female.*—The epithelium of the cavity of the uterine neck, as we have already said, preserves its cylindrical state during the whole duration of pregnancy, but at the same time loses its vibratile cilia upon the majority of the cells.

This is not the case with regard to the epithelium of the cavity of the body.

Having had occasion to examine numerous uteruses pregnant up to a period of two months, two months and a half, three, five, six and seven months and a half, I have observed that this epithelium gradually changes from the cylindrical, or perhaps better, the prismatic form, to the tesselated condition.

There is no fact which proves that it is the prismatic cells, which, directly, take the tesselated form. On the contrary, everything demonstrates, that at a certain period after impregnation, the epithelium of the cavity of the body of the uterus exfoliates, cell by cell, so to speak, or by little fragments, and that, succeeding this, that which replaces it is an epithelium, tesselated, with cells of from twelve to eighteen thousandths of a millimetre (from $\frac{450}{1000000}$ to $\frac{700}{1000000}$ of an inch) in size, regularly polyhedral, and juxtaposed like a pavement. They have a spherical or slightly ovoidal nucleus, very nearly the size of a red-blood globule. The nucleus is finely granulated, and, in a majority of cases, without any nucleolus. Deep, yellowish granulations fill the body of the cell, almost completely. The largest of these surround the nuclei with consi-

derable regularity. There is quite a large number of these cells which have no nuclei, and which are uniformly filled by these yellowish, fatty granulations. Those of the cells which are in this condition, or that are supplied with nuclei, which float freely in the uterine mucus, invariably become spherical, more enlarged, and sometimes more granular, than those which are joined together like a pavement.

This condition of the cells is quite regularly met with, from the sixth week to the second month, as well upon the decidua vera as upon the reflexa.

From that period forward, there are here and there portions of small extent, and showing no design in their position, which want the epithelium.

By reckoning from two months and a half, we observe, in the places of the regular cells, which we have just described, others much larger, and particularly much more elongated. They are minute, pale, flattened, and from four to nine hundredths of a millimetre (about $\frac{1}{100}\frac{5}{000}$ to $\frac{1}{100}\frac{9}{000}$) of an inch in length, but always irregular, prolonging themselves to a point at one or two of their extremities, or at many of their angles at the same time.

They have a nucleus larger than that of the preceding cells, always ovoid, and finely granulated. These large, pale cells, have few granulations. The fatty granulations which they enclose are separate one from the other, scattered about, irregularly distributed, and rarely grouped together or collected in spots.

These large cells, elongated, and having little regularity, go on increasing in number, proportionately with those first spoken of, according to the phases of pregnancy, and greatly outnumber them at the time of delivery. The extent of those portions which show no epithelium, also, continues to increase, so that upon the free face, or the non-adherent surface of the uterine decidua and the decidua reflexa, it is only in spots of limited extent, and after much search, that we can find the epithelium.

In proportion as the pregnancy has run through its phases, we make out also, that the nucleus of the great cells, which, at about the second or third month, often want the nucleolus, now presents one or two, which are yellow and brilliant in the centre, with a clear and deep outline. The nuclei have also become larger, and this increase in volume is equally to be noted in the body of the cells, as well in their length as in their breadth.

In the vicinity of the superior orifice of the cavity of the neck of the uterus, at the eighth month of pregnancy, the decidua reflexa is not adherent to that portion of the mucous membrane or the uterine decidua, which lies next the preceding orifice, for the extent of about three centimetres (a little more than an inch). We find in this region, cells similar to those which I have just described; some are regularly polyhedral, others elongated, and all of them show, very distinctly, two large ovoid or spherical nuclei

from twelve to fifteen thousandths of a millimetre in length ($\frac{450}{1000}$ to $\frac{600}{1000}$) of an inch, and about one fourth as wide. These nuclei are generally provided with one or two brilliant and yellowish nucleoli. Nevertheless, the cells are studded only with fine greyish granulations, uniformly distributed through the body of the cell, and through the nucleus, where they are less numerous than in this last. In this region, some of the cells still very distinctly preserve their prismatic form, especially towards the free extremity, which is regular, and cut square off. The end which adheres, however, is generally rounded, distended, and more enlarged than the rest of the substance. In this region the cells are accompanied by numerous free nuclei and amorphous matter, very granular, but with very fine granulations.

At this period of pregnancy, the epithelium of the tube is composed of nucleated epithelium, with ovoid nuclei; sometimes, however, spherical, and kept connected by a small quantity of amorphous matter. This epithelium is accompanied by a few prismatic or rather ovoid cells, having but little regularity, short and narrow, and provided with a nucleus similar to the free nuclei of the nucleated epithelium.

§ II.—*Of the principal arrangements, which the cells of the uterine epithelium, corresponding to the inter-utero-placental decidua, present in the human female.*

In the preceding paragraph, I have shown, that, during pregnancy, the prismatic epithelium, at an early period, is replaced by tesselated epithelium. I have pointed out the principal characteristics of the cells, which exhibit a multitudinous variety of forms.

But the modifications which the epithelial cells of the uterus undergo, during pregnancy, are not the same in all parts of the mucous membrane. I will now mention what kind of changes the epithelial cells of the organ of gestation undergo at the placenta and at its circumference.

The changes which gradually take place in the epithelial cells which are formed, included or wedged in, in some way, between the placenta which develops them, and the vascular portion of the mucous membrane of the uterus, which becomes the *inter-utero-placental decidua*, are most interesting, and at the same time most difficult to observe.

Since I drew attention to these modifications, although curious and remarkable,* I have discovered that it is indispensable that they should be known in detail. This point is necessary in order that we may definitely measure the limits between which certain anatomical elements are susceptible of variation, according to the normal or pathological conditions under which they are placed, and from that, determine the nature of those which sometimes

* Ch. Robin, *Mémoire pour servir à l'histoire anatomique et pathologique de la membrane muqueuse utérine, de son mucus et des œufs, ou mieux glandes de Naboth.* Lu à la Société philomathique, le 28 Mars, 1848. (*Archives Générales de Médecine*, 4t. Série, t. xvii., Paris, 1848, in—8°, p. 201.)

present themselves in morbid products, or which, up to the present time, have not invariably been well understood.

Besides, these changes take place also, in the cells which cover the uterine decidua and the decidua reflexa, and are found included between the two portions of the mucous membrane of the uterus, already become deciduous, when, in consequence of the increase in volume of the ovum, they begin to approach each other to adhere together. These modifications constitute a series, in some way, and in reality succeed those which have been described at the beginning of the preceding paragraph; they are a continuation of them. Before describing them, it is important, at least, to state that the intimate adhesion of the uterine decidua and the decidua reflexa strongly applied, the one to the other, in consequence of the increase in volume of the ovum, has for its effect, to bring into contact the epithelial cells in the substance of the decidua, even, a membrane which, at the time of delivery, appears to be a simple one, so close is the adhesion of these two, so called, uterine and reflected portions. But, this situation of the epithelial cells is not observed in the normal state, and would seem to be pathological, if we had not followed the phases of the gradual and ere-long intimate junction of the uterine decidua and the decidua reflexa.

[To be continued.]

THE CHEMICAL TREATMENT OF DISEASE.

[Read before the Medico-Chirurgical Society of Toronto, March 12th, 1861, by C. B. Hall, M.D., Toronto.]

Mr. President,—The short time you can spare for an essay could be readily occupied in naming the different hypotheses advanced for the explanation of the modus operandi of medicines, all at variance with one another, all failing when put to the test of practice, and yet none without some grounds of physiological truth for their foundation.

I propose, therefore, that we leave, as we find them, those sound principles of nosology that have stood already the experience of men of learning and thought, and devote a few minutes to the consideration of Liebig and Müller's opinion, that inflammation is an oxydized state of the proteine, and that all disease is the result of disarrangement of the affinities of particles, and see how far a chemical treatment may serve as an adjunct to a regular course of medicine. We do know of strange chemical changes constantly attending the animal economy. Thus in the normal state, the gastric juice, the almost first stage in nutrition, is acidulous, while the blood, the result of this digestion, is alkaline. Again, we have the secretion from the liver, the largest secreting organ in the body, with an alkaline base, while the product of the no less important organs, the kidneys, is uric acid. We have also

the oleaginous and albuminous secretions, the representatives of nitrogen and carbon, as we find others of oxygen and hydrogen, the two other elementary principles of all organic compounds. This in the healthy state. How innumerable the effects of their slightest variation in disease! not acknowledging the theory that this constitutes disease, but simply viewing them as co-incidents and their regulation as concomitants.

Take, for instance, the simplest form of congestion, or perhaps, more properly, torpor of the liver, found in the moderate drinker, particularly the beer-drinker, and more particularly when in moderation he has taken a little extra, with a few glasses of spirit, you find the tongue coated with heavy white fur, the gums pale and the fauces dry, the patient complaining not so much of constipation of the bowels, as a difficulty in passing what he calls a gummy, sticky sort of substance, which clings to him with a tenacity almost immovable, and of a dark green color, with very little odor, and attended by smarting, but no pain. The remedy for this is blue pill and black draught, or, as an old friend of mine in the country takes, ten grains of submurias hyd., followed by salts and senna. Chemically this is an acidulous excess, both in stomach and liver, and ten grains of carbonate of soda to act on the stomach, and ten of bitart. potass. to neutralize the hepatic secretion, in a glass of cold water, will often effect a cure in a few hours.

One of the most troublesome attendants of bilious as well as infantile remittent fever is the constant passing of green bile with mucus, showing its irritating effect on the membrane, thus provoking the febrile action and otherwise retarding the cure. I do not mean to say that liq. potass. or any other preparation of that alkali will cure bilious fever, but there is no doubt their use will correct this abnormal secretion, and thus effect one of the most important indications.

On the treatment of dysentery or diarrhœa, or whatever name you give to the various bowel complaints of children, you find a double action, or one extreme running into the other. If you are consulted in the early stage, you find the tongue slightly coated, but white, appearing as if the child had just taken a drink of milk. The stools green, somewhat painful, but not frequent, &c. This is always treated with antacids, as hyd. c. creta, with creta c. opii comp. or carb. soda, so that I have no particular point to call your attention to. But what is far more likely, you do not see the case till various pills and potions have been administered by the too confiding parents, suggested by the too knowing neighbors, *whose children have been exactly the same*, and cured by the far-famed remedy. You find the tongue coated in the centre with a dirty-white, inclining to brown, the tip and sides red, the fauces, gums and lips of the same color, a painful expression of countenance, with a whining, feeble cry, constantly picking its lips or ends of its fingers; stools more frequent, of the color of the

coating of the tongue, more painful before each motion, and increasing in frequency, &c., and you will invariably find an alkaline reaction, the stools often effervescing with nitric acid. Whatever course of treatment you would each suggest, you will find its efficacy most wonderfully advanced by an acid accompaniment, such as tr. ferri muriatis. Or still further, you may find the eye sunken, with a dark areola; skin something of the color of the tongue, flesh full, but flabby and doughy, with other strumous indications. Here is an opportunity for a double chemical action. Feed the child on starch, and give diluted nitric acid. You will not only furnish the best nourishment, and counteract the excess of alkali in the system, but nitric acid converts the starch into oxalic, than which no remedy appears to have such specific power over the strumous diathesis.

Take another familiar example with children, one in which you have no doubt been sorely tried, and wished, like the patient man of old, "your enemy would write a book" on it. A child at breast—the mother, strong and healthy, eats her meals with relish, has plenty of milk for the child, even more than it requires. This you find, on standing in the glasses, rich, and covered with thick, almost buttery cream. She tells you the child nurses freely and throws it up without any curdling. Bowels inactive for a few days, then three or four motions a day for a few more. Pulse feverish, child pale, fretful, crying and whining constantly. Here is a case of infantile indigestion, tending to cachexia. You prescribe infusion of cinchona, or some tonic, but without avail. Chemistry says, if you give that child sugar, it will convert the casein of the milk into lactic acid, the natural gastric juice of the child, and experience confirms the magical effect.

A white tongue is not a characteristic of pneumonia (I mean a clean white, like milk, distinguished from the snow-white of inflammation); but your experience will call to mind many cases of this formidable disease, with this anomalous attendant, and its no inconstant fellow symptoms of an acidulous action, the discharge of *green bile.* The chemical treatment in this case, is to combine liquor potassæ or bi-tart. potass. with your other remedies.

Rheumatism has been so frequently associated with excess of acid, that theorists have, for a few years past, laid down an alkaline course of treatment—but that excess of acid in the acute, or of alkali in the chronic, is symptomatic of the disease, I utterly deny. And here, in an opinion at variance with such a name as L. Golding Bird, let me ask you, if your own observations will not join me in the assertion that there is a marked difference between rheumatism in Europe and rheumatism in Canada, particularly those of you who have had an opportunity of seeing cases in the hospitals of London as well as this country. Nothing struck me more forcibly. Not to detain you with the question just now, I may allude to the well-known fact that in England the chronic

form tends to rheumatic gout, while in this country it assumes the nature of palsy. However, that the excretions in some cases, and often in certain stages of the same case, will acknowledge the test of alkaline and acid excess respectively, I think I may safely state as proven; hence it is our duty to seek out the admonitions that chemistry suggests, and govern ourselves accordingly.

The powerful antiseptic and disinfecting effects of chlorine have been long known, but until the accidental discovery of chloride of potassium, a few years ago, the different forms in which it was necessarily administered contained objections commensurate with its advantages. This salt is free from any of the difficulties of former preparations. Not so caustic for local use, as chloride of lime, and more effective than the chloride of sodium, it imparts its chlorine readily, and leaves the potass. as mild a caustic and gentle stimulant as could be wished—and wherever it has been applied to fœtid and indolent ulcers, the whole array of yeast and charcoal and other carbonaceous applications have fled before it in confusion. In that modern and most dreaded disease, diphtheria, there appears to me no safety in any other remedy. This is a malignant fever with putrid sore throat, the whole lining surface of the fauces and pharynx throwing off a false membrane, which again immediately forms attachments in places and thus hastens dissolution by a mechanical obstruction. Gentlemen, whose opinions I cannot but respect, still place their trust in the nitras argenti; but its application is very difficult, as it should touch *only* certain places, and its effect uncertain—while two or three free applications of the chloride of potass. with a sponge, will almost completely remove the local difficulty, and leave you a fair wind and an open sea.

Thus we have viewed chemistry only as adjunct or a chief assistant at our labors; but as we rise in the scale of disease, and find, as we do, our difficulty increase and our skill more at fault, we may be induced to look to this science as the polar star in our distress, and the guiding spirit to carry us through the storm. To include under one general term, the different disorders of this kind, such as albuminuria, tuberculosis, phthisis, &c., I will speak alone of scrofula or general cachexia, and of course will not attempt any minutiæ of detail.

We find an excess of fluid over the solid part of the body, as well as deficiency of fibrin or muscular fibre, and often total want of some important constituents of health, such as phosphorus and sulphur. Or we have excess of hydrogen, with loss of nitrogen. On the use and distribution of these two elements depend, almost solely, our hopes of cure; simply using carbonaceous and oxygenated substances as nourishment, to keep good the supply and preserve the waste, until we can effect a change in the other ingredients. That chemical changes do not take place with the same certainty and regularity in the system, influenced by vitality,

as in the alembic and under our observation, I am willing to admit; but that these changes are more or less definitely and correctly effected while circulating in the blood, I think can be as clearly proven. As an instance, and it constitutes a most important part in our curative process, give, for a few days, cod-liver oil with phosphate of lime, and you will detect the dumb-bell crystals of oxalate of lime in the urine. Now this can only be effected by the change of carbonic acid and carbonic oxide into oxalic acid, which from its stronger affinity sets free the phosphoric acid and unites with the lime. This change is easily produced in some part of the transit through the circulation.

Raw beef, pounded to shreds, has of late received the approval of the London and Continental Hospitals, as food in these cases, upon physiological reasons, particularly its ready transformation with little effort of nutrition to the much needed fibrin—but we also find that the pounding divests it of its cellular substance or cellulose, which is composed of hydrogen and oxygen in the exact proportions to form water. So the three, carbonic, oxalic and tartaric acids, to which so much importance has been attached, contain, two of them none, and the other a very small proportion of hydrogen, which may materially check that ready solvent from carrying the most important solids out of the system. I cannot agree with the one-man power of Dr. Churchill about the use of hypophosphites, but have no doubt of their most important efficacy when combined with cod-liver oil so as to produce the chemical transposition before mentioned.

The chemical indications of cure, therefore, consist in the proper regulations of hydrogen and nitrogen. The first by keeping from the system all such articles of diet as contain the elements of water, and using for medicines, like chemical compounds, the few acids I have named. The second by conveying into the system as much as possible of substances rich in nitrogen. Of these the principal are nitric acid, nitrate and cyanide of potass., and the different preparations of ammonia, the chief of which is the muriate—with articles of diet confined to caseine of milk, albumen of egg, and fibrin from beef and mutton.

Fruit, often highly recommended, derives its principal advantage from the long mastication required, causing a greater quantity of atmospheric air to be conveyed to the stomach with the saliva.—*British American Journal.*

The following figures have been published by M. Paul Dubois in a statistical investigation of the subject of the influence of lead poisoning in the production of abortion. Out of 141 pregnancies in females under the influence of lead, 82 abortions took place; in 4, premature confinements occurred; in 5, the children were stillborn; in 20, the children died in the course of the first year; in 8, during the second year; and in 7, in the third, &c.

Medical Reports from the Mass. General Hospital.

Prepared by Robert Ware, M.D.

Pneumonia. (Under the care of Dr. Bowditch.)—Hugh C., 20 years, an unmarried, Irish teamster, entered Dec. 7th, 1860. The patient states that on Sunday, 2d inst., he was, without any known exposure, attacked by a violent chill, which was followed by fever and pain in the right side of the chest. He afterwards had urgent and frequent cough, with the expectoration of sputa, which were at first frothy, but have within two days become viscid and bloody.

On entrance, the decubitus is on the left side, the skin is hot and dry, and the respiration labored and thoracic; pulse 100; tongue coated with a dry white fur; has paroxysms of cough, with expectoration of rusty mucus; there is pain over the whole right side of the chest, extending up to the shoulder. R. Pulv. Doveri, gr. vi. every three hours. Liquid farinaceous diet.

Dec. 8th (7th day of the disease).—He has had a very restless night, with much cough; he has taken six powders; is now lying on his back; skin moist; respirations 36, and quite labored; pulse 96, not full nor hard; percussion is tympanitic from the clavicle to the nipple on the right side, and dull below the nipple; it is also dull over the lower third of the right back; the respiratory murmur is obscure over the right back, without bronchial respiration or distinct crepitus; the respiration of the left side is somewhat obscured by sonorous and sibilant râles, which are even more marked over the right front; the sputa are purely pneumonic. Apply six leeches to the right side of the chest, and warm water compresses after the leeches. R. Opii, gr. iij.; antimon. et potass. tart., gr. i.; hydrarg. submur., gr. vi. M. in pil. 6. Give one pill three times a day. R. Vin. antimon., ℥ss.; morphiæ acetat., gr. ij.; syr. simplic., ℥ij. M. Give a teaspoonful, according to the cough.

Dec. 9th (8th day).—Some relief followed the leeches and hot compresses, but he had a more restless night, with increase of cough; expectoration still rusty and aërated; pulse 84, respirations 36; has taken three pills and four doses of the syrup; tongue dry, brown in the centre; absence of respiratory murmur and the dulness on percussion over the lower lobe of the right lung are the chief physical signs. He was allowed some bread; the medicine of the 8th was continued, and compresses wrung out in laudanum were applied to the side.

Dec. 10th (9th day).—He coughed much in the night, but the pain was very much diminished, and he had no severe fever turn; skin and tongue moist; pulse 72, respirations 36, and less labored; tympanitic quality in the percussion of the right front has wholly gone, and the resonance is pulmonic; less râle in front, and *râle crépitant de retour* over the right back. Omit his pills. Give him an enema.

Dec. 12th (11th day).—The enema was not required; his whole aspect is much improved; pulse 60, respirations 36; cough diminished and expectoration not viscid; a little swelling of the gums; crepitous râle more distinct. Vegetable diet.

He improved steadily from this date, and began to take broth on the 13th day; the râle and dulness on percussion had nearly disappeared by the 14th day, when he was allowed house diet; there con-

tinued to be some pain in the movements of the chest for several days, but he was discharged "well" on the 23d day of the disease.

Pneumonia. (Dr. Bowditch.)—Thomas D., 23 years, an unmarried, Irish laborer, entered Jan. 6, 1861. Patient states his health has usually been good, though he has suffered for the past fifteen months from a feeling as if his food lodged for a short time in the œsophagus, and during the past month his appetite has diminished. Four days since (Jan. 2d), he was attacked with chills, which were followed by ordinary febrile symptoms; there was no cough. On entrance, he is considerably prostrated, with flushed cheeks and suffused eyes; decubitus on the right side; pulse 96; tongue covered with a thick white coat; teeth a little crusted; abdomen flat and without rose spots; on full inspiration some pain in the left side; slight sonorous râle in front of both lungs, but otherwise respiratory murmur is normal, except at the back on the left side, where a slight crackling is heard: the area of dulness over the heart is greater than usual, extending from mid-sternum to the nipple and from the third to the sixth rib. R. Ol. ricini, ℥ss. Apply warm fomentations, and let him have liquid farinaceous diet.

Jan. 7th.—(6th day of the disease).—Still a good deal of pain about the left side and the region of the heart; skin hot; pulse 108; he complains of the feeling of arrest of food in the œsophagus, but swallows without any apparent difficulty. R. Spt. ether. nitros., gtt. xx. three times each day.

Jan. 8th (7th day).—Skin moist and cooler; no febrile attack; some buzzing in the ears; pulse 96, full; tongue rather browner coat; abdomen as yesterday; slight cough, with a little transitory mucous rale at the left back.

8th day.—He has had rather more cough, and the sputa are rusty. On thorough percussion of the back, no distinct dulness is detected, but the resonance is perhaps less clear at the middle third of the left back than elsewhere; there is no crepitus or bronchial respiration, but some transitory sonorous and mucous rales. In front, a fine crepitus is heard below the second rib along the left edge of the sternum, and it extends as far as the axilla; the respiration is rude directly under the clavicle, and slightly bronchial between the second and fourth ribs. Pulse 72, and he appears to be gaining.

On the 9th day, the pain and feeling of oppression in the chest were gone; the sputa continued rusty; pure crepitus had replaced bronchial respiration in the upper part of the left front. The sputa continued to be to some extent pneumonic in character until the 12th day, but the crepitus was wholly gone by the 13th. He was allowed broth on the 14th day, and was discharged well on the 22d.

Acute Rheumatism, complicated with Pneumonitis, Pleuritis, and Endocarditis. (Under the care of Dr. Bowditch.)—Catherine C., 32 years, a married Irish woman, and the mother of five children, entered November 25th, 1860. Patient states that her health has been good, with the exception of an attack of lung fever fifteen years since, and of rheumatic fever two years since. Her present sickness began with pain in the various joints of the body, and she has been confined to the bed since Oct. 25th. About Nov. 1st, she began to suffer from

pulmonary symptoms, viz., cough, dyspnœa, pain across the chest, and was visited by a physician Nov. 4th. This gentleman, who sent her to the Hospital, states that at his first visit he found her suffering from an acute thoracic affection, which had apparently supervened upon rheumatic fever; at both bases behind, the respiration was harsh and nearly bronchial, and mixed with much râle; there were resonance of the voice and dulness on percussion over the same places; there were much cough and dyspnœa, but the sputa were not pneumonic; no unequivocal evidence of cardiac disease was detected. She was treated by leeching and small doses of antimony at first, with some relief to the urgency of the symptoms, and afterwards by saline laxatives, small doses of the spirit of Mindererus, and counter-irritation by means of hot turpentine stupes; she took opium quite freely, and her nourishment consisted of beef tea, cider and wine in such quantities as she seemed able to bear. Under this treatment she improved; on Nov. 17th, her pulse had fallen to 84; her appetite had returned, and, though the physical signs at the bases of both lungs had not disappeared, she was quite comfortable. In a few days she had a return of pain and swelling in some of the joints, and an aggravation of the thoracic symptoms, and effusion into the pleura was detected Nov. 20th. She grew steadily worse up to her entrance into the Hospital.

At entrance, Nov. 25th, patient is lying on her back, with anxious countenance and moaning respiration; she complains chiefly of soreness across the chest, and of pain in the right shoulder and left hand, which are somewhat swollen and reddened; area of cardiac dulness rather larger than normal; bellows murmur after the first sound at the apex of the heart; second sound of the pulmonary artery accented; bronchial respiration is heard over the lower third of the left back where the percussion is duller than on the other side; respiration harsh, nearly bronchial, over the whole right back; pulse 120, full and regular; tongue moist and red; cough quite severe at night; expectoration frothy, white, and streaked with a little blood. ℞. Quiniæ sulphat., gr. i., three times a day. Diet of broth, beef tea, fish and baked potato. ℞. Pulv. Dover., gr. viii. every night. She appeared more comfortable for some days, though she still complained of pain in the cardiac region; and other joints, besides those affected at her entrance, were attacked.

Nov. 29th.—She is able to sit up better, and walked across the ward this morning. Bronchial respiration is less distinct at the right back, where the râles are coarser and more abundant; percussion still quite dull at the base of the left back, where the respiration is obscure; pulse 96; coughs much at night.

Nov. 30th.—Cardiac murmur and dulness as at entrance; in the right back, below the spine of the scapula, there is occasional fine crepitation with bronchial respiration and bronchophony; has had a bad night, with more cough; pulse 96; bowels open. Omit medicines. ℞. Vin. colchici, gtt. xx.; elix. opii, gtt. x.; three times a day. The ethereal tincture of iodine (i. e. iodine, ℥ss. to sulphuric ether, ℥i.) was applied over the back and the heart as a counter-irritant; half a grain of opium was given at night.

Dec. 7th.—She has somewhat improved in strength and appetite, but still suffers much from pain in the various joints and through the chest; the breathing is sufficiently easy while she is quiet, but becomes labored when she moves or talks; percussion is still dull at the

lower part of both backs; bronchial respiration rather less marked, but still heard about the spine of the right scapula; no crepitus; slight œgophony at the lowest part of the left back. Increase colchicum to fifteen drops. She was allowed egg and wine, and was permitted to sit up.

Dec. 12th.—Dulness and bronchial respiration gone from the right back; some crepitus and dulness on percussion at the left base; joints stiff, but not painful; she has slept more quietly, and has coughed less.

Dec. 19th.—She sits up and talks without apparent dyspnœa; respiration in the lower parts of both backs is obscure; there is some friction sound and resonance of the voice at the left base behind; the bellows murmur is still distinct, but is less rough. Let her have a warm bath once in three days. ℞. Tinct. cinchonæ, C. ℥i. twice a day; omit the colchicum.

On the 21st, a slight crepitus and some tendency to a bronchial character in the respiration, with a little dulness on percussion, were noted at the base of the right lung, but this soon disappeared. She complained of pain and a feeling of weakness in the region of the heart, and had on two small blisters over the heart, but was able to walk about freely on the 30th. From that date she gained steadily, though still suffering from cough and occasional rheumatic pains; and, Jan. 5th, 1861, it was noted that the respiration, though a little obscure at the bases of the lungs, was not morbid and was without râle.

Jan. 13th.—There was a return of the râles behind, and a marked aggravation of the pulmonary symptoms coincident with an increase in the pain and stiffness of the various joints; she also had some fever. This condition lasted but three or four days, and she was discharged well, Jan. 22d, 1861. She had been sick about thirteen weeks, and it was nearly twelve weeks since she was attacked with pulmonary symptoms.

Bibliographical Notices.

Another Letter to a Young Physician; to which are appended some other Medical Papers. By James Jackson, M.D., &c. 16mo. Boston: Ticknor & Fields. 1861.

This other Letter is in continuation of the well-known volume of Letters, from the same venerable author, published in 1855. It may be fairly designated as a little volume, but a great work. The principal paper, Letter Eighteenth, treats of a subject which has recently agitated, in an unusual degree, the mind of the public as well as of the profession, viz., the "utility of medicine:" or, as he has stated the question in more ample terms, "how far the sick are benefited by the care and prescriptions of the physician:—or, limiting the inquiry to the use of medicinal drugs—whether the sick are more helped than hurt by them." In discussing the question he discards all theories, believing that we do not yet possess sufficient facts on which to build a satisfactory system of rational medicine, and bases his conclusions upon experience, and for the most part on his own experience, regarding himself as a witness on the stand to tell what he himself knows.

No one acquainted with the author will question his competence as an observer, his entire single-heartedness in the search for truth, and the candor and logical sequence with which he arrives at his conclusions. Few men among us, certainly, have been privileged to prosecute investigations so extensively, and for so long a period.

As the whole letter is a condensed abstract of the conclusions of a life-time, it would be impossible to abbreviate; yet a few points may be adverted to.

That the question has ever seriously arisen, either in the public or the professional mind, whether there is any good to be derived from the "practice of medicine," we can scarcely credit. We think that, in the broad sense, no medical man would allow it; and if that expression has been used by others, we believe it to have been as an inexact equivalent for the "use of medicine." Dr. Jackson, at least, has full faith in the "practice of medicine," whatever interpretation may be given to that expression. To show this, he selects a few of the most powerful drugs, the same which his teacher had trusted in a hundred years ago, and states their effects, the diseases for which they are appropriate, and the mode of administration. He strongly advances the opinion that the onset of disease is the appropriate, and generally the only time for active treatment by medicines; and dwells fully upon the paramount importance of hygienic treatment subsequently, especially in all that class of diseases which have been termed self-limited. From these he is inclined to withdraw typhus, though we think the characteristic eruption would, by analogy, indicate otherwise. He does not abandon blood-letting; and, if practised according to his limitations, we believe it to be not only unobjectionable but highly advantageous. In this connection he contrasts the practice of Rush and his followers, and the celebrated Dr. Danforth, who relied on stimulants and nutrients. It is not a little singular to find how the doctrines of this latter practitioner have been revived by the distinguished Dr. Todd, though from the tone of his reviewers, we believe they will gain little credence beyond the circle of his immediate pupils.

Dr. J. states that this letter was called forth by the agitation which has followed the "Currents and Counter-Currents" of Dr. Holmes, with whom and with Dr. Bigelow, *rightly understood*, he declares he mainly agrees. Some may not be inclined to admit this, if they judge by a comparison of language. But however this may be, Dr. J. has fully vindicated his own declaration, "I have not become tired of administering medicine; I am not incredulous as to its utility." It is not a little gratifying to see the increasing tendency, in England especially, to accede to the doctrines of "Nature in Disease."

In his discussion of hygienic treatment, there are two or three things we are specially pleased to see enforced. One is, that we are to be guided in no small degree, in the selection of articles of food and even medicine, by the fancy of the patient; another is, that by kindness and cheerfulness we are to encourage hopefulness; but we might quote every precept advanced, with pleasure.

The other papers in the volume are, the reports of the medical history of two of our distinguished citizens, John Lowell, Jr., and William H. Prescott, in both of which some important points in disease are illustrated; a memoir on the last sickness of Washington; portions of a letter to Sir John Forbes in 1846, showing that the doctrines in regard to the treatment of disease he now holds were held

by him then; and a note on the importance of studying the workings of the human mind and heart, as a part of the qualification for a good physician and nurse.

This little volume, as we said before, is a gem. Few things will be found in it to which any practitioner of any shade of faith will not assent, nothing that does not so commend itself to our common sense that we seem to have known it all before; coming, without any obfuscation of learned words, in all the simplicity and plain English of the child, and yet with all the wisdom and authority of age and experience. Every one will read it, and desire to carry it with him as his daily guide.

We are happy to know that the Publishing Committee of the Massachusetts Medical Society has made arrangements to supply each of the members with a copy.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 23, 1861.

PROF. H. J. BIGELOW'S LECTURES ON MILITARY SURGERY.—In our issue of the 2d inst., we announced that Dr. Bigelow had kindly consented to deliver a gratuitous course of lectures on Military Surgery, at the Medical College in Grove St., to all those gentlemen of the profession who might choose to avail themselves of the opportunity. This generous offer met with a most cordial response from the profession, and as the course is now completed we feel it is due to the distinguished professor of surgery to express our sense of the obligation under which he has placed the medical public, and the community at large. The audience which daily crowded the lecture room might well inspire any man to his best efforts. Two hundred or more eager listeners, members of so busy a profession as ours, could not be drawn day after day to the College by any ordinary attraction. Many of the constant attendants came from the country for miles around Boston, and in one instance we are told an assiduous auditor made a daily journey of fifty miles and back to avail himself of the privilege. The course comprised a complete *résumé* of all the topics embraced by the copious subject treated of; from ligation of all the principal arteries, every form of amputation, fractures, dislocations, gun-shot and other wounds, to the diseases peculiar to armies, the important hygienic precautions for protecting the health of soldiers, the peculiar duties of army surgeons in the field, the professional status of the military surgeon and his relations to other departments of the service, and concluded with a very able lecture on venereal complaints.

The subject of wounds was made peculiarly interesting by experiments performed in the presence of the audience. Having been furnished by the Adjutant General with the various kinds of arms likely to be used, Dr. Bigelow inflicted bloodless and painless wounds on the dead body before the class. An opportunity was thus given, for example, of witnessing the fearful effects of the "Minié" ball upon the bones, crushing and completely disorganizing the large joints,

where a common musket ball made a simple direct perforation. The whole course of lectures was, of necessity, much condensed, and the labor of preparing them was proportionately the more arduous; this could be done, however, without the danger of important omissions, as the audience was one of practising physicians, not students. When we state that the request to deliver these lectures was made to Dr. Bigelow on Saturday—that the first was delivered on the following Monday, and followed up with hardly a day's intermission to the close—each lecture being from an hour and a half to two hours long, with demonstrations on the body—some idea may be got of the amount of work done. The lectures were eminently practical, and the interest in them was sustained to the end. In speaking of the comparative merits of chloroform and sulphuric ether as anæsthetics for army use, a topic to which we have recently adverted, Dr. Bigelow's opinion coincided with our subsequently expressed views. Giving unequivocal preference, in his own practice, to sulphuric ether, on account of its entire immunity from danger, he nevertheless considered chloroform to be the best anæsthetic for army use: first, from its portability, its bulk being about one-eighth that of ether; second, from its comparative freedom from accidents by fire resulting from breakage, leakage, &c. Upon the question of danger from the inhalation of chloroform, Dr. Bigelow quoted Macleod's account of the Crimean war, during which but one fatal accident occurred from its use among the English, while Baudens states that in the French service no accident occurred from the inhalation of chloroform in thirty thousand cases.

We must not omit to mention the valuable aid contributed to this course of lectures by Drs. Cabot and Gay, who attended every afternoon at the dissecting-room of the College, to superintend the operations on the dead body, which those attending the lectures had the fullest opportunity of performing. Anatomical material was supplied in the greatest abundance, and these gentlemen were untiring in giving their personal advice and instructions to all who wished them. It is to be regretted that no provision was made for a full report of Dr. Bigelow's lectures, but in the haste with which they were got up, this was unfortunately omitted.

A meeting of the medical gentlemen who attended the course, was held after the last lecture, at the Medical College, on Friday, the 10th inst., of which Dr. Luther V. Bell of Charlestown was appointed chairman, and Dr. D. W. Cheever secretary.

Dr. Geo. S. Jones alluded to the sudden necessity of a course of lectures on military surgery, and to the promptitude with which Harvard University responded to the emergency. After dwelling upon the readiness with which the Professor of Surgery acceded to the request that he would deliver a course of lectures upon this subject, and also upon the assistance rendered by other gentlemen, he proposed the following resolutions, which were unanimously adopted.

Resolved, That the thanks of the meeting be presented to Dr. HENRY J. BIGELOW, for his valuable course of lectures on military surgery; and not only for the concise and practical way in which they were delivered, but also for the numerous and various apparatus and experiments with which they were illustrated.

Resolved, That the thanks of the meeting be also presented to Dr. S. CABOT, Jr. and Dr. GEO. H. GAY, for their very kind and able superintendence of the operations on the dead body, for the benefit of those gentlemen who are preparing for the arduous duties of military surgeons.

It was resolved that a committee of three be appointed to communicate to the above-named gentlemen the foregoing resolutions; and, on nomination by the Chair, Dr. G. S. Jones, Dr. Ezra Palmer and Dr. A. Coolidge were chosen a committee for this purpose.

We gladly give place to the following communication, with the hope that any erroneous impression which may have been given by our editorial remarks may be at once removed.

In what we had to say with reference to the Medical Commission, our sole object was to state what we believed to be the truth, and we very much regret that in so doing we should have said anything which should have been regarded by any one as a misrepresentation of the views and feelings of those gentlemen who have so faithfully served the government in the present emergency, and to whom the whole public are so largely indebted.

Messrs. Editors,—I desire to correct the impression which a certain portion of the articles in your Journal of May 9th and 16th may possibly leave on the minds of some, that the "Medical Commission" are as a body committed one way or the other upon the question of the value of chloroform as an anæsthetic. The matter is very properly left to the judgment of the regimental surgeon who makes the requisition, one great object of the Commission being, by careful examination, to prevent any applicant from attaining to that position whose discretion in the use of remedies cannot be relied upon.

Very truly yours, Geo. H. Lyman.

Boston, May 16th, 1861.

We publish with pleasure the following excellent directions for the sanitary conduct of the troops in the field, which constitute the substance of a report prepared by Dr. John Ware, of the State Medical Commission, to be communicated to the Massachusetts regiments in active service.

DIRECTIONS.

Soldiers should recollect that in a campaign, where one dies in battle, from three to five die of disease. You should be on your guard, therefore, more against this than the enemy, and you can do much for yourselves which nobody can do for you.

1. Avoid, especially, all use of ardent spirits. If you will take them—take them rather *after* fatigue than before. But tea and coffee are much better. Those who use ardent spirits are always the first to be sick and the most likely to die.

2. Avoid drinking freely of very cold water, especially when hot or fatigued, or directly after meals. Water quenches thirst better when not very cold and sipped in moderate quantities slowly—though less agreeable. At meals, tea, coffee and chocolate are best. Between meals, the less the better. The safest in hot weather is molasses and water, with ginger, or small beer.

3. Avoid all excesses and irregularities in eating and drinking. Eat sparingly of salt and smoked meats, and make it up by more vegetables, as squash, potatoes, peas, rice, hominy, Indian meal, &c., when you can get them. Eat little between, when you have plenty at meals.

4. Wear flannel all over in all weathers. Have it washed often when you can—when not, have it hung up in the sun. Take every opportunity to do the same by all your clothing, and keep everything about your person dry, especially when it is cold.

5. Do not sit, and especially do not sleep upon the ground, even in hot weather. Spread your blanket upon hay, straw, shavings, brush-wood, or anything of the kind. If you sleep in the day, have some extra covering over you.

6. Sleep as much as you can and whenever you can. It is better to sleep too warm than too cold.

7. Recollect that cold and dampness are great breeders of disease. Have a fire to sit around whenever you can, especially in the evening and after rain, and take care to dry everything in and about your persons and tents.

8. Take every opportunity of washing the whole body with soap and water. Rub well afterwards. If you bathe, remain in the water but a little while.

9. If disease begins to prevail, wear a wide bandage of flannel around the bowels.

10. Keep in the open air, but not directly exposed to a hot sun. When obliged to do this, a thin, light, white covering over the head and neck, in the form of a cap with a cape, is a good protection.

11. Wear shoes with very thick soles, and keep them dry. When on the march, rubbing the feet, after washing, with oil, fat or tallow, protects against foot sores.

We have been requested to insert the following:—

Boston, May 23d, 1861.

The undersigned, Chairman of the Committee appointed by the Medical Improvement Society of this city to investigate alleged deaths from the inhalation of sulphuric ether, desires to assure the profession that the investigations of that Committee are not of a partizan character, and have no relation whatsoever to the so-called "ether controversy." As an impression exists at a distance from here that the circulars which have been so largely distributed by them have some connection, either antagonistic or friendly, with the measures at present being taken in favor of Dr. W. T. G. Morton, this denial will, it is hoped, suffice to convince those gentlemen to whom they have been addressed that no ulterior motive is concealed, and that no use, other than that stated in the circular, viz., to prove or disprove the absolute safety of inhaling pure sulphuric ether, will be made of their replies.

R. M. Hodges, M.D.

Messrs. Editors,—As very frequent applications are made at the Medical College to visit the Museum, and as there are many specimens in the collection that would be appreciated by non-professional persons, the Faculty have decided to open it to the public: I would therefore request you to insert the following notice in your Journal.

Yours respectfully, J. B. S. Jackson,

Curator of the Museum.

The Museum will be open, until further notice (and to adults only), every Monday afternoon from 3 until 5 o'clock. Tickets for admission, which are not transferable, will be required, and may be had gratuitously, at Mr. T. Metcalf's, 39 Tremont St., the applicants signing their names in a book that will be kept at the door of the Museum.

Naval Medical Board.—A Board of Medical Officers will convene at the United States Naval Hospital, New York, on the 1st of June next, for the examination of candidates for admission to the Medical Corps of the U. S. Navy. Candidates must make application to the Secretary of the Navy, giving their residence, date and place of birth, together with respectable testimonials of moral character. Applicants must not be less than 21 nor more than 25 years of age.

Messrs. Baillière and Brothers have in press and will publish in a few days, "A Practical Treatise on Military Surgery," by Frank Hastings Hamilton, M.D. The distinguished reputation of the author will make this book most eagerly sought for.

MEDICAL SCHOOLS OF CANADA.—The number of students in attendance at the medical schools of Canada for 1860-61 is as follows:—University of McGill College, Montreal, 124; Toronto School of Medicine, 81; Montreal School of Medicine, 43; University of Laval, Quebec, 32.—*North American Med.-Chir. Review.*

MEDICAL SCHOOLS AND STUDENTS ABROAD.—During the past winter, the number of students in Paris was 1156; in London, 1237; and in Dublin, 806; showing a large increase over the session of 1859-60. In Dublin, the number attending the different schools was as follows:—Ledwich School, 228; College of Surgeons' School, 220; Cecilia Street School, 101; Trinity College School, 100; Richmond Hospital School, 97; Steevens's Hospital School, 60.—*Ibid.*

THE BITE OF RABID ANIMALS NOT ALWAYS FOLLOWED BY HYDROPHOBIA.—A fact well worthy of notice is mentioned in the last annual statistics furnished by the General Hospital of Vienna. It would appear that out of 115 persons bitten by animals whose rabid state was clearly made out, only 25 died with symptoms of hydrophobia. As, however, the actual and precise length of the period of incubation is not known, these figures cannot be completely relied upon; but it is highly useful to note the comparatively small proportion of deaths which occurred after the well-ascertained inoculation with the poison.—*London Lancet.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 18th, 1861.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week,	27	36	63
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	33.7	34.3	68 0
Average corrected to increased population,	..	..	75.5
Deaths of persons above 90,	..	1	1

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
17	3	1	2	0	0	1	0	0

METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer,	29.916	Highest point of Thermometer,	67°
Highest point of Barometer,	30.144	Lowest point of Thermometer,	38°
Lowest point of Barometer,	29.722	General direction of Wind,	E., W. & W.N.W.
Mean Temperature,	55°.05	Am't of Rain (in inches) melted snow	0.266

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 *North. Longitude,* 13.41 *West. Height above the Sea,* 729.

		BAROMETER.						THERMOMETER.				SNOW & RAIN.		Mean Amount of Cloud 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Mean Height,	Highest Point,	Lowest Point,	7 AM	2 PM	9 PM	Mean Height,	Time 9 hours, 00 minutes.	Measure.	
Monday,	May 6,	28.50	28.62	28.70				55	53	52				
Tuesday,	" 7,	28.75	28.89	29.05				49	55	48				
Wednesday,	" 8,	29.23	29.26	29.26				48	65	60				
Thursday,	" 9,	29.28	29.18	29.03	29.96	29.28	28.50	57	69	59	56.3		0.27	6
Friday,	" 10,	29.01	29.12	29.20				52	63	56				
Saturday,	" 11,	29.26	29.22	29.24				58	66	57				
Sunday,	" 12,	29.18	29.09	29.06				53	57	51				

DIED,—In New York, May 13th, D. Meredith Reese, M.D., LL.D., aged 61 years.—Feb. 13th, at La Fayette, New Orleans, Dr. George Logan, aged 83 years, late of Charleston, S. C., and father of Dr. Thomas M. Logan, of Sacramento.

DEATHS IN BOSTON for the week ending Saturday noon, May 18th, 63. Males, 27—Females, 36.—Accident, 2—anæmia, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 1—cancer, 1—cholera infantum, 1—consumption, 17—convulsions, 3—croup, 3—dropsy, 2—dropsy of the brain, 2—dysentery, 1—epilepsy, 2—scarlet fever, 1—disease of the heart, 1—infantile disease, 1—intemperance, 4—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 1—old age, 2—peritonitis, 2—puerperal disease, 1—rheumatism, 1—scrofula, 2—unknown, 3—whooping cough, 1.

Under 5 years of age, 21—between 5 and 20 years, 6—between 20 and 40 years, 18—between 40 and 60 years, 14—above 60 years, 4. Born in the United States, 44—Ireland, 17—other places, 2.